WHAT IS CLAIMED IS:

1. A monitoring system comprising:
- a primary system with multiple devices; and
- a simulator for simulating behavior of the primary system;
wherein:
- the monitoring system evaluates a result supplied by the primary system with respect to an outcome calculated by the simulator in order to monitor the primary system.

2. The system of claim 1, wherein:
- each respective one of the devices comprises a respective finite state machine;
- the respective state machine calculates per time step a value of a quantity according to a respective mathematical function;
- the respective mathematical function has as arguments:
    - the value of the quantity calculated at a preceding time step by at least another one of the state machines;
    - a respective history of values assumed by the quantity calculated by the respective state machine;
    - a respective control code determined by content present in a memory of the respective device at the time step;
- the respective mathematical function is such that the quantity assumes a stochastic behavior.

3. The system of claim 1, wherein:
- each respective device has a respective computational resource;
- each respective one of the devices performs a respective primary task using the respective resource; and
- depending on the respective primary task, each respective device performs a respective secondary task for reducing availability of the respective computational resource.

4. The system of claim 2, wherein

- each respective device has a respective computational resource;
- each respective one of the devices performs a respective primary task using the respective resource;
- depending on usage of the resource for the respective primary task, each respective device performs a respective secondary task for reducing availability of the respective computational resource; and
- the respective secondary task comprises calculating the quantity using adapting a length of the respective history.

5. A method of enabling to protect a primary system that has multiple devices, the method comprising:
- simulating a behavior of the primary system; and
- evaluating a result supplied by the primary system with respect to an outcome calculated by the simulator.

6. The method of claim 5, wherein:
- each respective one of the devices comprises a respective finite state machine;
- the respective state machine calculates per time step a value of a quantity according to a respective mathematical function;
- the respective mathematical function has as arguments:
    - the value of the quantity calculated at a preceding time step by at least another one of the state machines;
    - a respective history of values assumed by the quantity calculated by the respective state machine; and
    - a respective control code determined by content present in a memory of the respective device at the time step; and
- the respective mathematical function is such that the quantity assumes a stochastic behavior.

7. The method of claim 5, wherein:
- each respective device has a respective computational resource;

- each respective one of the devices performs a respective primary task using the respective resource; and
- the method comprises enabling each respective device to perform a respective secondary task, depending on the respective primary task, for reducing availability of the respective computational resource.

8. The method of claim 6, wherein
- each respective device has a respective computational resource;
- each respective one of the devices performs a respective primary task using the respective resource;
- the method comprises enabling each respective device to perform a respective secondary task, depending on the respective primary task, for reducing availability of the respective computational resource; and
- the respective secondary task comprises calculating the quantity using adapting a length of the respective history.

9. A device having a computational resource for performing a primary task, and comprising an FSM, independent of performing the primary task, for enabling to monitor an integrity of the resource.